

[0002] INTENTIONALLY LEFT BLANK -- DELETED

[0003] U.S. Patent Application Serial No. 09/854,933 entitled "High Temperature Super-Conducting Rotor Coil Support With Split Coil Housing And Assembly Method", filed May 15, 2001 (atty. dkt. 839-1006);

[0004] U.S. Patent Application Serial No. 09/854,931 entitled "Synchronous Machine Having Cryogenic Gas Transfer Coupling To Rotor With Super-Conducting Coils", filed May 15, 2001 (atty. dkt. 839-1007);

[0005] U.S. Patent Application Serial No. 09/855,026 entitled "High Temperature Super-Conducting Synchronous Rotor Coil Support With Tension Rods And Method For Assembly Of Coil Support", filed May 15, 2001 (atty. dkt. 839-1008);

[0006] U.S. Patent Application Serial No. 09/854,946 entitled "High Temperature Super-Conducting Rotor Coil Support With Tension Rods And Bolts And Assembly Method", filed May 15, 2001 (atty. dkt. 839-1009);

[0007] U.S. Patent Application Serial No. 09/854,939 entitled "High Temperature Super-Conducting Coils Supported By An Iron Core Rotor", filed May 15, 2001 (atty. dkt. 839-1010);

[0008] U.S. Patent Application Serial No. 09/854,938 entitled "High Temperature Super-Conducting Synchronous Rotor Having An Electromagnetic Shield And Method For Assembly", filed May 15, 2001 (atty. dkt. 839-1011);

[0009] U.S. Patent Application Serial No. 09/854,940 entitled "High Temperature Super-Conducting Rotor Coil Support And Coil Support Method", filed May 15, 2001 (atty. dkt. 839-1012);

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[0010] U.S. Patent Application Serial No. 09/854,937 entitled "High Temperature Super-Conducting Rotor Having A Vacuum Vessel And Electromagnetic Shield And Method For Assembly", filed May 15, 2001 (atty. dkt. 839-1016);

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[0011] U.S. Patent Application Serial No. 09/854,944 entitled "A High Power Density Super-Conducting Electric Machine", filed May 15, 2001 (atty. dkt. 839-1019);

[0012] U.S. Patent Application Serial No. 09/854,943 entitled "Cryogenic Cooling System For Rotor Having A High Temperature Super-Conducting Field Winding", filed May 15, 2001 (atty. dkt. 839-1062);

[0013] U.S. Patent Application Serial No. 09/854,464 entitled "High Temperature Super-Conducting Racetrack Coil", filed May 15, 2001 (atty. dkt. 839-1063); and

[0014] U.S. Patent Application Serial No. 09/855,034 entitled "High Temperature Super Conducting Rotor Power Leads", filed May 15, 2001 (atty. dkt. 839-1064).

The paragraph beginning at page 10, line 15:

The rotor includes a pair of end shafts 24, 30 that brace the core 22 and are supported by bearings and can be coupled to external devices. The collector end shaft 24 includes a collector rings 78 that provide an external electrical connection for the connections 79 on the coil 36 of the coil winding 34. In addition, the collector end shaft has a cryogen transfer coupling 26 to a source of cryogenic cooling fluid used to cool the SC coil windings in the rotor. The cryogen transfer coupling 26 includes a stationary segment coupled to a source of cryogen cooling fluid and a rotating segment which

B¹ em d. provides cooling fluid to the HTS coil. The drive end shaft 30 includes a power coupling 32 to a driving turbine, for example.

\ The paragraph beginning at page 12, line 1:

B² Fluid passages 38 for cryogenic cooling fluid are included in the coil winding 34. These passages may extend around an outside edge of the SC coil 36. The passageways provide cryogenic cooling fluid to remove heat from those coils by conduction heat transfer. The cooling fluid maintains the low temperatures, e.g., 27°K, in the SC coil winding needed to promote super-conducting conditions, including the absence of electrical resistance in the coil. The cooling passages have an input ports 39 and output ports 41 at one end of the rotor core. These ports 39, 41 connect to cooling passages 38 on the SC coil to the cryogen transfer coupling 28.

\ The paragraph beginning at page 12, line 14:

Each HTS racetrack coil winding 34 has generally-straight side portions 40 parallel to a rotor axis 20 and end portions 42 that are perpendicular to the rotor axis. The side portions of the coil are subjected to the greatest centrifugal stresses because they are the portions of the coil furthest from the rotor axis. Accordingly, these side portions of the coil are supported by a support system (shown in Figs. 3 and 4) that secures the side portions of the coil and counteract the centrifugal forces that act on the coil side portions.

\ The paragraph beginning at page 14, line 26 through page 14, line 9:

B³ In a dual HTS coil winding arrangement, the rotor core 22 has two pair of recess surfaces 44 for the twin coils. These four recessed surfaces are symmetrically arranged

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around the rotor core periphery to provide balance during rotation. These surfaces 44 each define a volume 48 in the rotor core extending the length of the rotor core that has a generally right-angled triangular cross section. The hypotenuse of this triangular cross section is an arc of the surface 46 of the rotor core. Each volume 48 receives a side portion 40 of one of the two HTS coil windings 34. The warm iron core 22 has an array of conduit apertures 52 to allow the tension bars to extend through the rotor.

The paragraph beginning at page 18, line 5:

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The split clamp 54 at each end of the coil winding includes a pair of opposite plates 56 between which are sandwiched the end section 42 of the coil. The surfaces of the clamp plates 56 includes channels 58 to receive the end sections of the coil windings. The split clamp may be supported by a collar (not shown) or other structural device that holds the clamp to the rotor core and enables the clamp to support the end sections of the HTS coils.

[The paragraph beginning at page 18, line 14:]

The electrical and cooling fluid couplings 39 cooling to the coils are at the coil end sections 42. An electrical coupling to the coil is provided at the end section nearest the end shaft having a collector (not shown) for providing electrical connection to the rotating coils on the rotor. A cooling fluid coupling is provided at the opposite end section of each coil winding so that cryogenic cooling fluid can flow to the coils and heat been removed from the coils in the cooling fluid that is circulated back from the coils and to the cooling system.

The paragraph beginning at page 24, line 1: